

ASI

Configuração

Infraestrutura TI

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ASI – 2021/2022

Equipa Docente

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Requisitos técnicos

Windows / Linux / MacOS 32 ou 64 bits

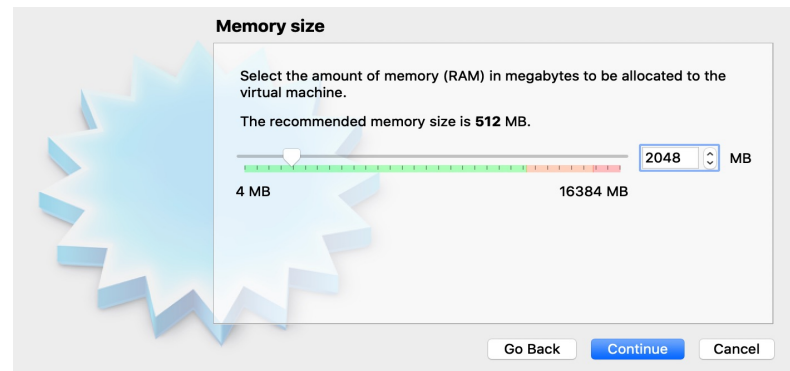
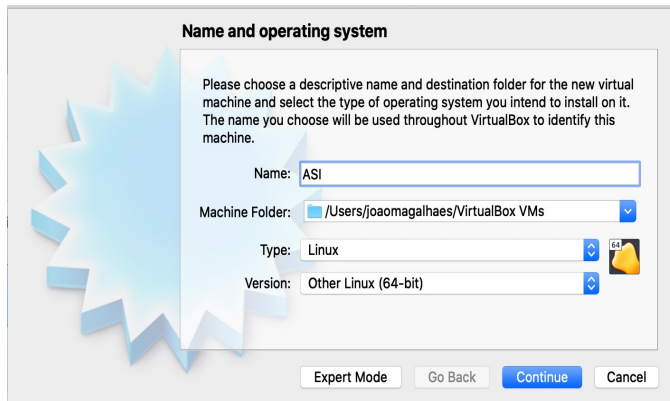
Ambiente de virtualização (sugere-se virtualBox última versão) instalado

Criação de Máquina Virtual (VM)

1. Ubuntu Server 20.0.4

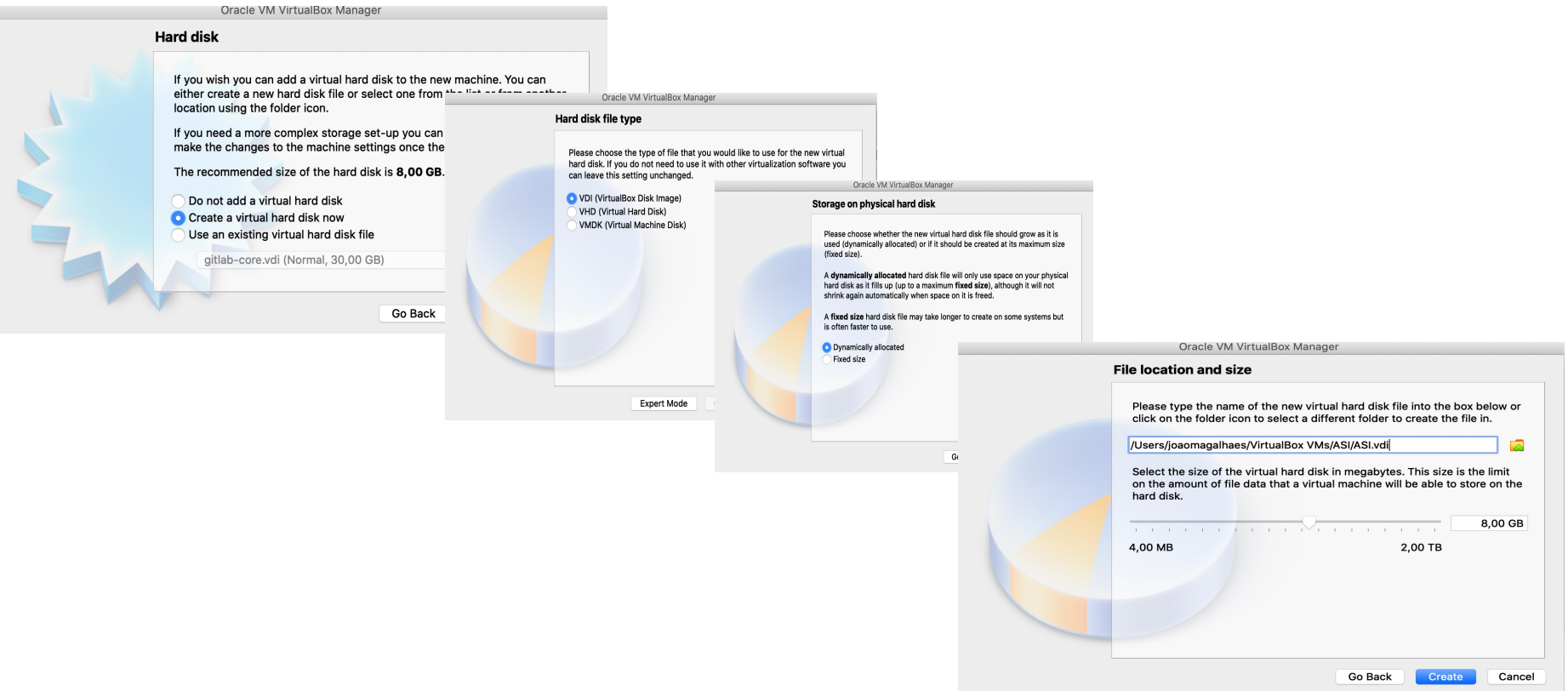
- Download: <https://releases.ubuntu.com/20.04.3/ubuntu-20.04.3-live-server-amd64.iso>

2. Criar VM no VirtualBox (2GB de RAM com 8GB de disco)



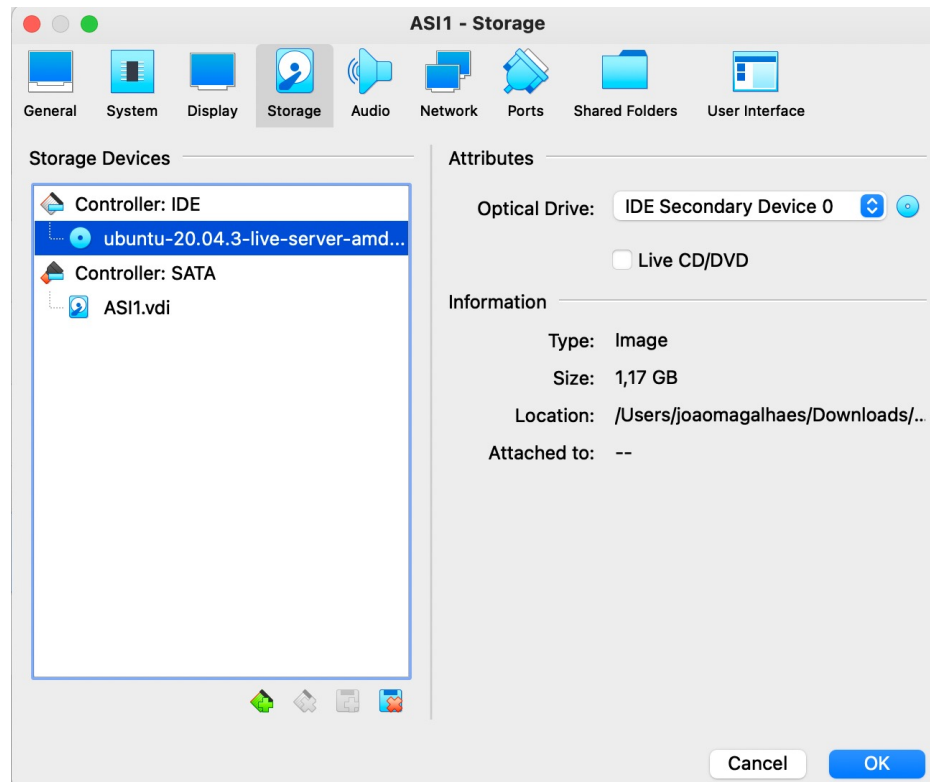
Criação de Máquina Virtual (VM)

2. Criar VM no VirtualBox (2GB de RAM com 8GB de disco)



Instalação do CentOS na VM

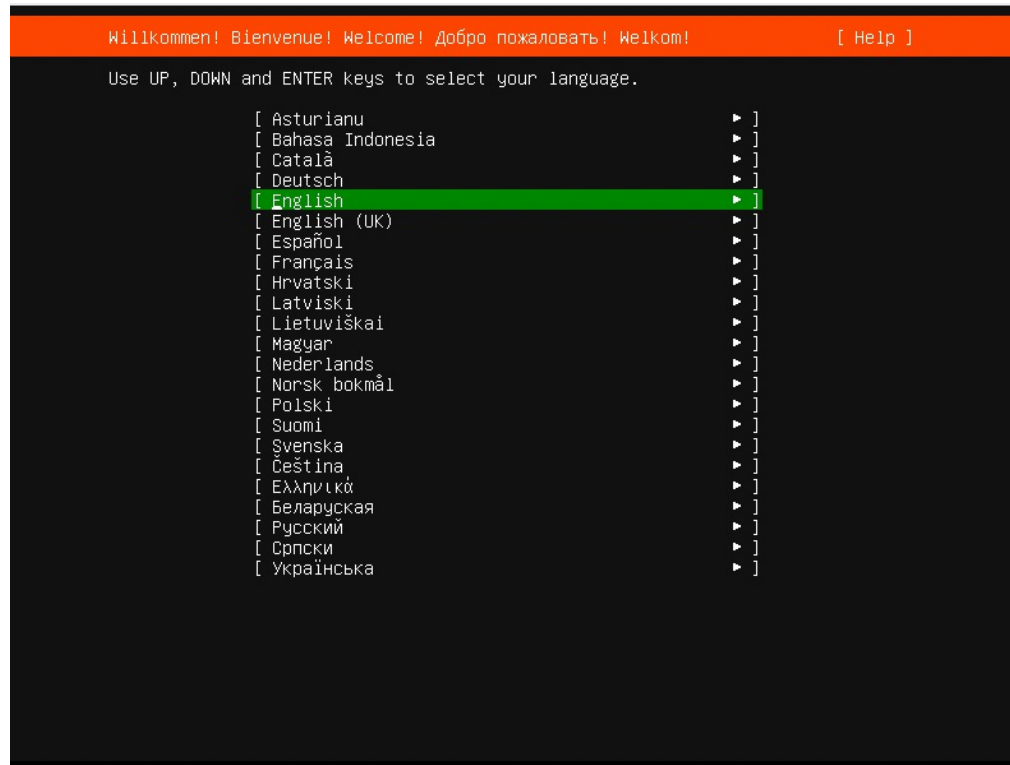
3. Inserir ISO no leitor CD da VM no VirtualBox e fazer Start à VM para instalar



Instalação do Ubuntu na VM

4. Instalar Ubuntu

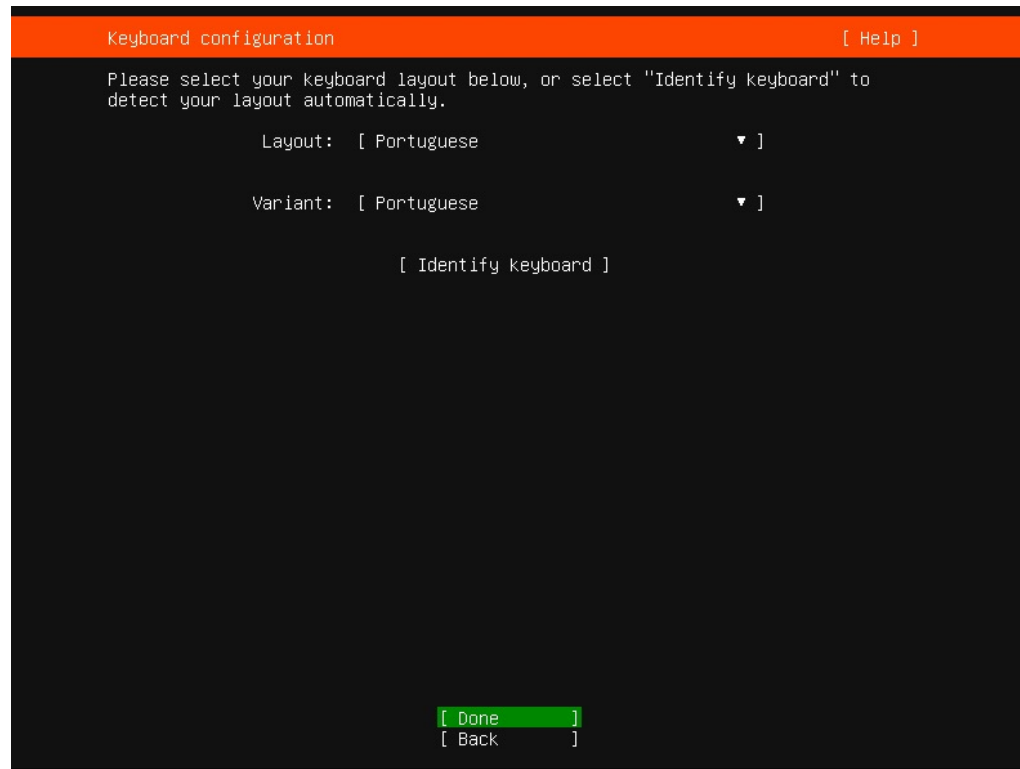
- Atenção ao teclado, seguir a sequência e escolher um utilizador e password (asi/asi2021)



Instalação do Ubuntu na VM

4. Instalar Ubuntu

- Atenção ao teclado, seguir a sequência e escolher um utilizador e password (asi/asi2021)



Instalação do Ubuntu na VM

4. Instalar Ubuntu

- Atenção ao teclado, seguir a sequência e escolher um utilizador e password (asi/asi2021)

Configure proxy [Help]

If this system requires a proxy to connect to the internet, enter its details here.

Proxy address:

If you need to use a HTTP proxy to access the outside world, enter the proxy information here. Otherwise, leave this blank.

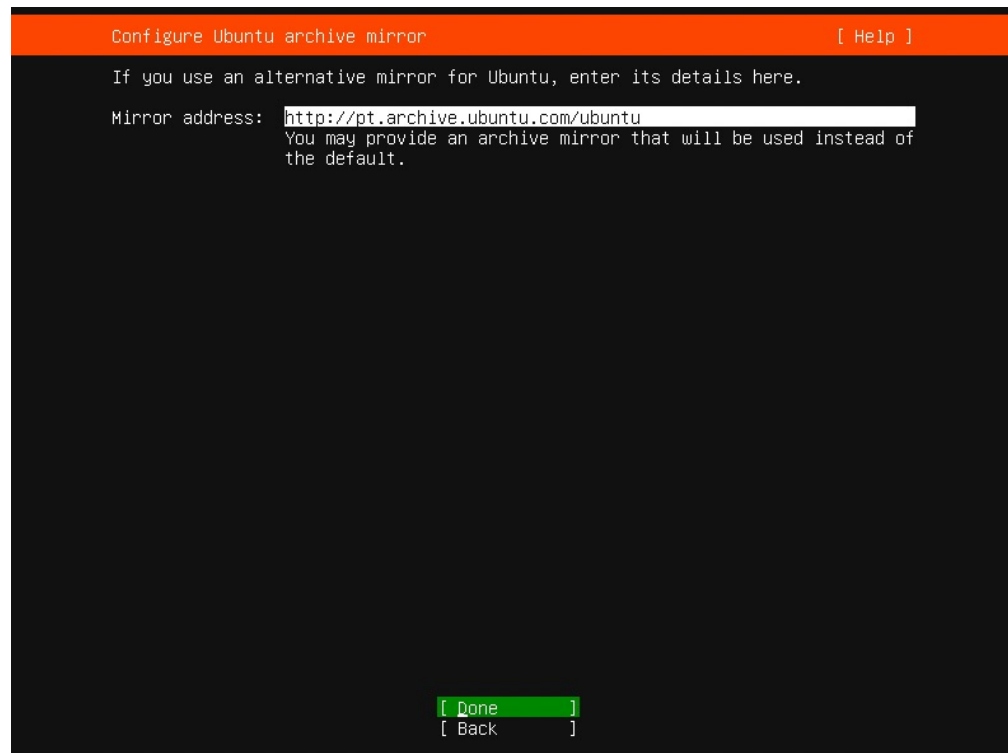
The proxy information should be given in the standard form of "http://[[user] [:pass]@host[:port]]/".

[Done]
[Back]

Instalação do Ubuntu na VM

4. Instalar Ubuntu

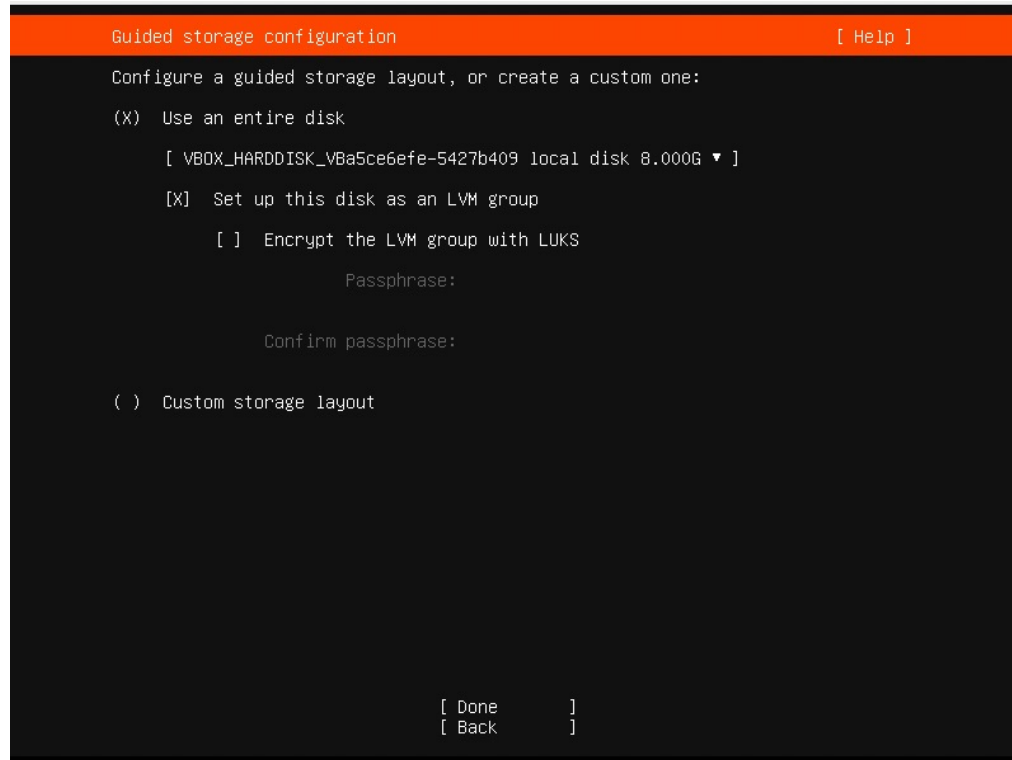
- Atenção ao teclado, seguir a sequência e escolher um utilizador e password (asi/asi2021)



Instalação do Ubuntu na VM

4. Instalar Ubuntu

- Atenção ao teclado, seguir a sequência e escolher um utilizador e password (asi/asi2021)



```
Guided storage configuration [ Help ]

Configure a guided storage layout, or create a custom one:

(X) Use an entire disk
    [ VBOX_HARDDISK_VBa5ce6efe-5427b409 local disk 8.000G ▼ ]
    [X] Set up this disk as an LVM group
        [ ] Encrypt the LVM group with LUKS
            Passphrase:
            Confirm passphrase:

( ) Custom storage layout

[ Done ]
[ Back ]
```

Instalação do Ubuntu na VM

4. Instalar Ubuntu

- Atenção ao teclado, seguir a sequência e escolher um utilizador e password (asi/asi2021)

```
Storage configuration [ Help ]

FILE SYSTEM SUMMARY

MOUNT POINT    SIZE    TYPE    DEVICE TYPE
[ /             6.996G  new ext4 new LVM logical volume ▶ ]
[ /boot         1.000G  new ext4 new partition of local disk ▶ ]

AVAILABLE DEVICES

No available devices

[ Create software RAID (md) ▶ ]
[ Create volume group (LVM) ▶ ]

USED DEVICES

DEVICE                                TYPE                                SIZE
[ ubuntu-vg (new)                     LVM volume group                   6.996G ▶ ]
ubuntu-lv    new, to be formatted as ext4, mounted at /  6.996G ▶ ]

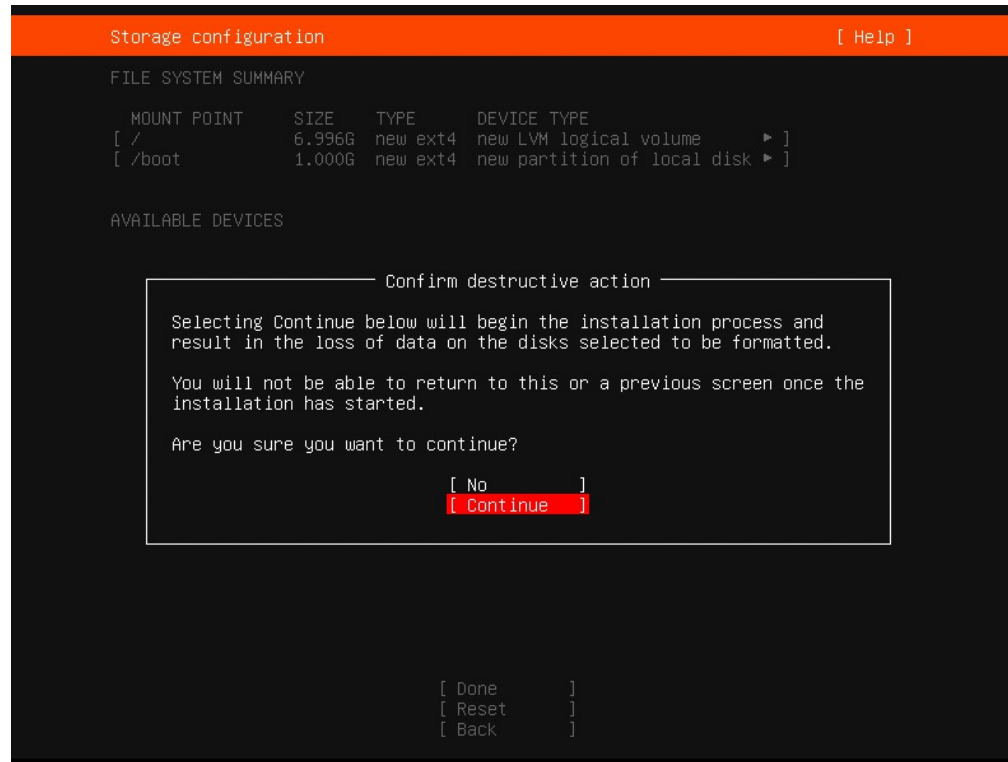
[ VBOX_HARDDISK_VBa5ce6efe-5427b409    local disk                           8.000G ▶ ]
partition 1  new, BIOS grub spacer      1.000M ▶ ]
partition 2  new, to be formatted as ext4, mounted at /boot  1.000G ▶ ]
partition 3  new, PV of LVM volume group ubuntu-vg           6.997G ▶ ]

[ Done ]
[ Reset ]
[ Back ]
```

Instalação do Ubuntu na VM

4. Instalar Ubuntu

- Atenção ao teclado, seguir a sequência e escolher um utilizador e password (asi/asi2021)



Instalação do Ubuntu na VM

4. Instalar Ubuntu

- Atenção ao teclado, seguir a sequência e escolher um utilizador e password (asi/asi2021)

Profile setup [Help]

Enter the username and password you will use to log in to the system. You can configure SSH access on the next screen but a password is still needed for sudo.

Your name: asi

Your server's name: asi1
The name it uses when it talks to other computers.

Pick a username: asi

Choose a password: ****

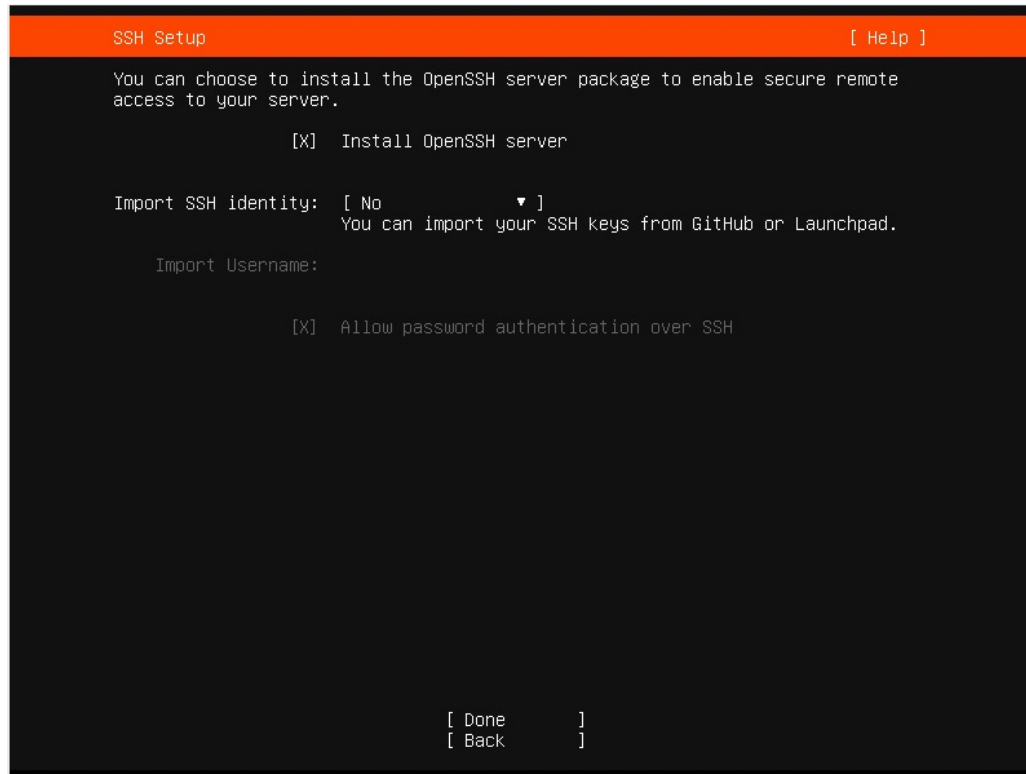
Confirm your password: ****

[Done]

Instalação do Ubuntu na VM

4. Instalar Ubuntu

- Atenção ao teclado, seguir a sequência e escolher um utilizador e password (asi/asi2021)



```
SSH Setup [ Help ]

You can choose to install the OpenSSH server package to enable secure remote
access to your server.

[X] Install OpenSSH server

Import SSH identity: [ No ▼ ]
You can import your SSH keys from GitHub or Launchpad.

Import Username:

[X] Allow password authentication over SSH

[ Done ]
[ Back ]
```

Instalação do Ubuntu na VM

4. Instalar Ubuntu

- Atenção ao teclado, seguir a sequência e escolher um utilizador e password (asi/asi2021)

```
Featured Server Snaps [ Help ]

These are popular snaps in server environments. Select or deselect with SPACE,
press ENTER to see more details of the package, publisher and versions
available.

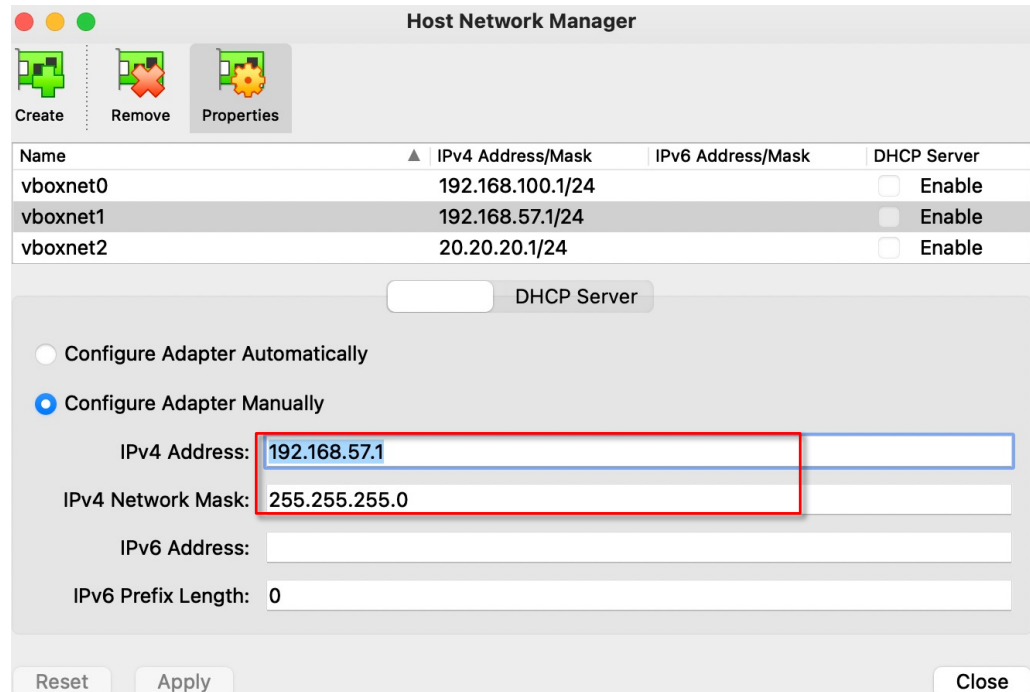
[ ] microk8s      Kubernetes for workstations and appliances ▶
[ ] nextcloud     Nextcloud Server - A safe home for all your data ▶
[ ] wekan         The open-source kanban ▶
[ ] kata-containers Build lightweight VMs that seamlessly plug into the c ▶
[ ] docker        Docker container runtime ▶
[ ] canonical-livepatch Canonical Livepatch Client ▶
[ ] rocketchat-server Rocket.Chat server ▶
[ ] mosquitto     Eclipse Mosquitto MQTT broker ▶
[ ] etcd          Resilient key-value store by CoreOS ▶
[ ] powershell   PowerShell for every system! ▶
[ ] stress-ng     tool to load and stress a computer ▶
[ ] sabnzbd       SABnzbd ▶
[ ] wormhole      get things from one computer to another, safely ▶
[ ] aws-cli       Universal Command Line Interface for Amazon Web Servi ▶
[ ] google-cloud-sdk Google Cloud SDK ▶
[ ] slcli         Python based SoftLayer API Tool. ▶
[ ] doctl         The official DigitalOcean command line interface ▶
[ ] conjure-up    Package runtime for conjure-up spells ▶
[ ] postgresql10 PostgreSQL is a powerful, open source object-relation ▶
[ ] heroku        CLI client for Heroku ▶
[ ] keepalived    High availability VRRP/BFD and load-balancing for Lin ▶
[ ] prometheus    The Prometheus monitoring system and time series data ▶
[ ] juju          Juju - a model-driven operator lifecycle manager for ▶

[ Done ]
[ Back ]
```


Rede host hospedeiro

5. Abrir virtualBox em modo “Administrator” (Run As Administrator)

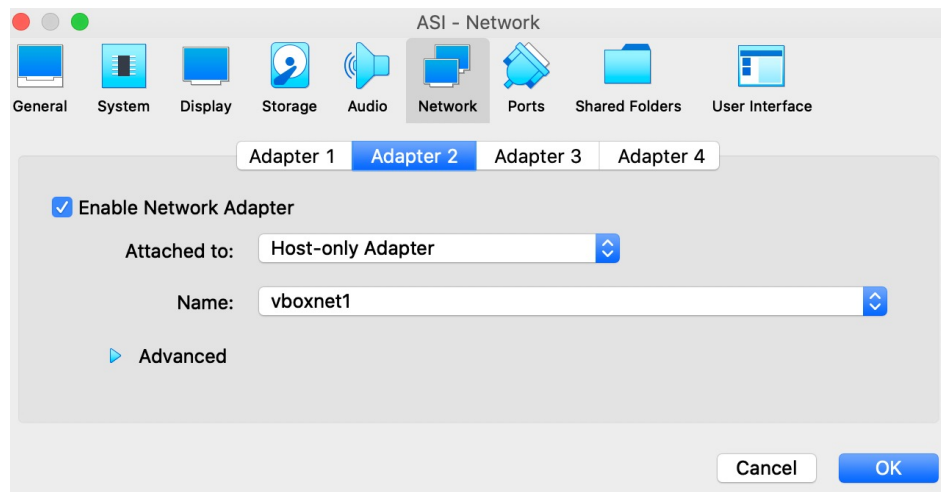
5.1. Criar um interface de rede (IP: 192.168.57.1, Network Mask: 255.255.255.0)



Setup Rede nas VM

6. Fazer “Settings” sobre a VM importada

- Tab “Network”
 - Tab “Adapter 2”
 - Ativar a placa de rede em modo “Host-only Adapter”
 - Indicar no “Name” o nome do adaptador de rede criado no passo 1
 - Fazer “OK”



Iniciar VM e finalizar configuração rede

7. Fazer “Start” à VM

7.1. Login na consola com user / password (e.g. asi / asi2021)

- Fazer sudo para root (sudo su -)
- ip addr

```
asi@asi1:~$ ip addr
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
        valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host
        valid_lft forever preferred_lft forever
2: enp0s3: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group default qlen 1000
    link/ether 08:00:27:54:c2:84 brd ff:ff:ff:ff:ff:ff
    inet 10.0.2.15/24 brd 10.0.2.255 scope global dynamic enp0s3
        valid_lft 86362sec preferred_lft 86362sec
    inet6 fe80::a00:27ff:fe54:c284/64 scope link
        valid_lft forever preferred_lft forever
3: enp0s8: <BROADCAST,MULTICAST> mtu 1500 qdisc noop state DOWN group default qlen 1000
    link/ether 08:00:27:ab:67:d4 brd ff:ff:ff:ff:ff:ff
asi@asi1:~$ _
```

Iniciar VM e finalizar configuração rede

7.2. Editar ficheiro `/etc/netplan/00-installer-config.yaml` como root e colocar o seguinte conteúdo

```
root@asi1:~# nano /etc/netplan/00-installer-config.yaml
```

```
GNU nano 4.8
# This is the network config written by 'subiquity'
network:
  version: 2
  ethernets:
    enp0s3:
      dhcp4: true
    enp0s8:
      addresses: [192.168.57.10/24]
```

IP: 192.168.57.10

7.3. Ativar o interface de rede (netplan apply)

```
root@asi1:~# netplan apply
root@asi1:~#
```

Aceder remotamente à VM via SSH

Login via SSH (a partir da máquina hospedeiro)

- Linux/Mac Terminal
 - ssh [root@192.168.57.10](#)
- Windows (SSH via MobaXterm)
 - 192.168.57.10

Gestão de disco

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